REMARKS

A Final Rejection was mailed in the case on November 9, 2010, making a response due on or before February 9, 2011. This Response is being submitted, along with a Petition For Extension of Time Within the First Month and the required fee. This response also accompanies a Request For Continued Examination and the required fee. No additional fee is thought to be due at this time. If any additional fee is due for the continued prosecution of this application, please charge the same to Applicant's Deposit Account No. 50-2555 (Whitaker, Chalk, Swindle & Sawyer, LLP).

Claims 7-21were pending in the case. Method Claim 7 had been withdrawn from prosecution pursuant to a Restriction Requirement. In the Final Rejection mailed on February 9, 2011, the Examiner continues to reject pending Claims 8-21 under 35 U.S.C. §103 as being unpatentable over the reference to Langelin (DE 4302539). Reconsideration of the rejection is respectfully requested in view of the claim amendments and arguments which follow.

The Supplemental Information Disclosure Statement:

Included with this Request For Continued Examination is a Supplemental Information Disclosure Statement which is being submitted in order to make of record certain new prior art documents which were recently cited against the corresponding pending patent application in Japan.

The new prior art references that were not already cited in the United States are:

1. JP 11-139850
2. JP 2-229712
3. JP 10-291820

An English abstract of those documents is enclosed. While not being strictly obligated to do so, Applicant wishes to present an explanation of the relevance of these documents with regard to the claims pending in the United States application.

JP 11-139850, as far as this document has been correctly understood, it relates to a slaked lime powdery composition. The slaked lime powdery composition (see §6 of this document) is obtained after addition of water to quicklime. The slaking according to this document is done by adding water with a ratio of calcium oxide/water of 1/0.35 – 1/1.5 and preferably about 40-70%. The slaking pathway chosen by this document is a powdered pathway meaning that the obtained calcium hydroxide is rendered directly in powdery (or granulated) form (see § 21 and § 22 of this document).

This document therefore fails to teach an aqueous suspension with particles of solid matter in suspension (which should at least be calcium hydroxide).

Further, there is no teaching about a link between the specific surface area being less than or equal to 10 m^2/g and the maximum viscosity value of 1.2 Pa.s. Therefore, amended Claim 8 is novel in view of this document. Even if solid state slaked lime with a low surface specific area is disclosed, there is no disclosure of an aqueous suspension obtained therefrom which presents a dynamic viscosity less than or equal to 1.2 Pa.s.

For this reason, amended Claim 8 is novel and unobvious in involving an inventive step in view of this document.

JP 2-229712, as far as Applicant may understand this document, the disclosure relates to a process for making $Mg(OH)_2$ from quicklime by starting with a reaction between quicklime and an aqueous solution containing anions to form a slaked lime suspension containing the anion.

Then a portion of the slaked lime suspension containing the anion is reacted with $MgCl_2$ or $Mg(NO_3)_2$ (without forming any new mixed compounds).

Then hydrothermal treatment is performed and $Mg(OH)_2$ is obtained with a specific surface between 1-10m^2/g and a particle size of 0.5 to 5 μm.

According to Applicant's reading of this document, there is no teaching of specific surface area of $Ca(OH)_2$ or of a mixed compound $Ca(OH)_2$ + [MgO or $Mg(OH)_2$ or both] that is disclosed before being put in suspension.

This document does not intend to put the obtained product in suspension and consequently, there is no value for the dynamic viscosity in this document.

The product obtained after hydrothermal treatment is $Mg(OH)_2$ in a powdery state and since the aim of the invention of this document is to produce ($Mg(OH)_2$ with a low tendency to agglomerate, there is no teaching to put it in an aqueous suspension.

JP 10-291820, teaches the slaking of calcium oxide particles with water by controlling the temperature rise. This document further tries to decrease the viscosity of hydroxide suspension by using a dispersing agent to increase the solid content. There is no teaching of a link between dynamic viscosity and BET specific surface area.

Response to the Examiner's Argument:

Applicant has carefully reviewed the content of the Office Action of November 9, 2010. In view of the Search Report issued by the Japanese examiner and the new cited documents, Applicant has now introduced the preferred viscosity value (from Claim 12) into amended Claim 8. Claim 12 has accordingly been cancelled.

With respect to the content of the most recent Office Action, Applicant would remark that the Examiner is apparently of the opinion that even though BET specific area is different from the Blaine specific surface area, that "**reducing the Blaine surface area would also result in a decreasing in the BET specific area.**" However, as previously introduced into evidence in case, in the Declaration of the expert filed on September 4, 2009, it has been stated that "*the BET specific surface area is either equal or higher than the Blaine specific surface area and that it will be equal if the material is strictly non porous. As soon as the particles are slightly porous, the internal surface area of the material becomes important in comparison to the external surface area and, as a consequence, the BET specific surface area is, in general, larger or much larger than the Blaine specific surface area*".

On the last page, the conclusion stated by Prof. Pirard is that "*the BET specific surface area, S_{BET} and the Blaine specific surface area, S_p are two different characteristics of a porous material almost independent of each other, they can not be taken for one another*'.

In the next Office Action (dated October 21, 2009), the Examiner agrees with the content of the declaration and states that there is a difference between the specific surface area and BET specific surface area in a porous matter.

In response to that Office Action, Applicant responded by providing evidence that the material according to Huege et al is porous. The Examiner considered at this stage that the Huege et al. reference had been overcome.

The Examiner then cited a new document, Langelin (DE4302539), and now, after having considered the arguments Applicant provided in response, concluded that such arguments were not persuasive basically on the basis that the specific surface area, which is affected by the particle size of the solid is a result effective variable since Langelin teaches a lower specific area is desired in order to decrease the viscosity (page 3). The Examiner goes on to argue that "*it would have been obvious to*

one of ordinary skill in the art at the time of invention to have optimized the particle size and the specific surface area of Langelin, including the claimed particle size of less than or equal to 20 or 5 μm, and the claimed specific surface area of less than or equal to 5 m^2/g, in order to achieve desired viscosity."

In that section of the Office Action entitled "*Response to Arguments*", the Examiner explained: "*However, even though BET specific area is different from the Blaine specific surface area, reducing the Blaine surface area would also result in a decreasing in the BET specific area*".

Applicant is not able to understand this argument. Indeed, in the declaration of Prof. Pirard, in Table 1 thereof, it has been shown that the external surface area (Blaine specific surface area) is a function of the particle diameter. Indeed, when the particle diameter increases, the Blaine specific surface area decreases. Further, Table 2 compares the Blaine specific surface area and the BET specific surface area for several samples.

As can be seen, for the three samples "A" in Table 2, the S_{BET} (BET specific surface area) is quite constant since this mainly represents the intrinsic specific surface area being not directly linked to the particle size.

However, the Blaine specific surface area varies quite widely.

The portion with a particle size greater than 32 μm presents a reduced Blaine specific surface area with respect to the non sieved sample A, while the BET specific surface area does not change significantly.

Consequently, the teaching of Langelin, to increase the particle size, thereby reducing the Blaine specific surface area will not lead to a variation of the BET specific surface area.

Further, Applicant must respectfully traverse the Examiner's assertion that from the teaching of Langelin, that one skilled in the art would likely be motivated to increase the particle size and therefore decrease drastically the Blaine specific surface area, since this will not have any significant impact on the BET specific surface area. There is therefore no teaching to decrease the BET specific surface area in order to stay under or at a preferred dynamic viscosity value of 1.2 Pa.s.

In the last Office Action, the Examiner states that Applicant did not provide factual evidence to show that the optimization of the BET specific surface area and the particle size in Langelin would not lead to the claimed ranges. However, Applicant would respectfully submit that this request is an *a posteriori* analysis made by the examiner because the problem is not to know if optimization of the BET specific surface area in Langelin and the particle size in Langelin would lead or not to the claimed ranges but to know if a man skilled in the art would encompass varying BET specific surface area together with reducing the particle size in Langelin. The response is clearly negative.

Langelin teaches one skilled in the art to use particles with high particle size to reduce the viscosity.

The aim of the present invention is to provide an aqueous suspension with a small particle size while reaching acceptable viscosity value of less than or equal to 1.2 Pa.s which is just the contrary of Langelin as far as the particle size is concerned.

Further, there is only one value of BET specific surface area that is given in Langelin. This value is mentioned for particles with a high particle size greater than 200 μm.

First of all: Because there is no teaching to change the starting material in the portion of particles having another BET value and because the BET specific surface area is not linked to the particle size, there is no possible comparison possible or conclusion that can be taken from the single BET specific surface area value mentioned in Langelin.

Further, the teaching is to increase the particle size up to higher value with respect to 200 μm. At most, one skilled in the art will try to use the same lime and will increase the particle size. This will not lead to an aqueous suspension with a granulometric dimension d_{98} less than 20 μm.

Therefore, it is clear that from Langelin, that one skilled in the art will never (and surely not in an obvious way) imagine that reducing the particle size for a BET value of less than 10 m^2/g will lead to a product having a dynamic viscosity lower than 1.2 Pa.s for the aqueous suspension made from the particles.

Based upon the above arguments and amendments, Claims 8-21 are now thought to be allowable over the art of record and an early notification of the same would be appreciated.

Respectfully submitted,

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